

Appl. No. 10/625,649  
Amdt. Dated Dec. 21, 2005  
Reply to Office Action of Sep. 21, 2005

### REMARKS

#### ***Double Patenting***

*Claims 1-2 and 7-15 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-4 of Wu (U.S. Patent No. 6,905,373).*

*Claims 3-6 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-4 of Wu (U.S. Patent No. 6,905,373) in view of Peterson et al. (U.S. Patent No. 5,664,969).*

Applicant has amended corresponding claims. After amendments, the rejection to double patenting should be respectfully traversed.

Independent claim 1 of Wu (U.S. Patent No. 6,905,373) claims that "the central contact beam comprises a first spring arm extending upwardly and rearwardly from the intermediate portion and a second spring arm extending forwardly and downwardly from the first spring arm and having a free end for abutting against the intermediate portion", "the first spring arm has a first curved portion connecting with the one end of the intermediate portion and a second curved portion connecting with the second spring arm for contacting with a complementary contact" and "the second curved portion of the first spring arm extends rearwardly beyond the connecting portions of the resilient side arms". However, it is clear that none of claims in the instant invention cites the above limitations underlined for performing the corresponding function.

Independent claim 3 of Wu (U.S. Patent No. 6,905,373) claims "the housing defines a slot extending through a front face while not extending through a bottom face thereof, the slot communicating with the cavity, and the intermediate portion of the contact comprises a tab received in the slot". However, none of amended claims in the instant invention cites the above limitations for performing the corresponding function. Furthermore, Independent claim 3 of Wu further claims "a central contact beam

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extending from one end of the intermediate portion", while claims of the instant invention define "a central contact beam extending from adjacent to a front end of the intermediate portion". Thus, it is understood from the above description that the central contact beam of Wu is formed by bending from the front end of the intermediate portion, while the central contact beam of the instant invention is formed by punching from the intermediate portion. They are two different manufacturing methods. The instant invention can save more material than Wu.

On the other hand, claims 1 and 9, as amended, define the central contact beam having a deflectable and curved contacting portion at a free end thereof, the free end being apart from the said intermediate portion a predetermined distance in a vertical direction. Neither Wu nor Peterson discloses this feature. Thus, claims 1 and 9 and their associated dependent claims 2-4, 6-8 and 10-11 are not obvious to Wu and Peterson.

Claim 12 defines a horizontal planar intermediate portion having two opposite side edges received in the corresponding pair of slits, respectively, a pair of vertical arms extending vertically from two sides of the intermediate portion with a pair of tips received in the corresponding channels, respectively. Because Peterson is essentially a closed type while Wu is essentially an open type, it is hard to combine the respective structures for simultaneously owning these features. Claim 12 and its associated dependent claims 13-17 are not obvious to Wu and Peterson.

Therefore, claims 1-15 are unobvious over claims 1-4 of Wu (U.S. Patent No. 6,905,373) in view of Peterson et al. (U.S. Patent No. 5,664,969). There is no double patenting in claims between combination of Wu and Peterson et al. and the instant invention. Withdrawal of the double patenting rejections is respectfully requested.

#### ***Claim Rejections under 35 U.S.C. 103(a)***

*Claims 1-2 and 7-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ohsumi (U.S. Patent No. 5,664,326) in view of Pelozo (U.S. Patent No. 5,362,260).*

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*Claims 3-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ohsumi (U.S. Patent No. 5,664,326) in view of Peloza (U.S. Patent No. 5,362,260) in further view of Peterson et al. (U.S. Patent No. 5,664,969).*

In response to these rejections to independent claims 1 and 9 set forth in the OFFICE ACTION, applicant has amended claims 1 and 9 to incorporate some novel limitations. Such amendments introduce no new matter since they can be supported by original disclosure and drawings. By such amendments, amended claims 1 and 9 are believed to be patentable over the cited references.

As to amended independent claim 1, a cable assembly as defined therein comprises an insulative housing defining a plurality of cavities; a plurality of contacts received in corresponding cavities of the housing; and a plurality of cables terminated to the tail portions of corresponding contacts. Each contact comprises an intermediate portion, a central contact beam extending from adjacent one end of the intermediate portion, a pair of side contact beams extending from two opposite sides of the intermediate portion and a tail portion extending from an opposite end of the intermediate portion, the central contact beam having a deflectable and curved contacting portion at a free end thereof, said free end being apart from the said intermediate portion a predetermined distance in a vertical direction.

Ohsumi discloses a cable assembly comprising a metal terminal (B) received in a terminal receiving chamber (1) of a connector housing (A). The contact includes a bottom plate portion (5), *a folded elastic connecting strip (8) extending from one end of the bottom plate portion 5* and a wire connecting portion (B2) extending from an opposite end of the bottom plate portion and terminated to a cable (W). The folded elastic connecting strip 8 of Ohsumi extends from one end of bottom plate portion (as shown in FIG. 1 of Ohsumi), while the central contact beam of claim 1 extends from adjacent one end of the intermediate portion. The two different extending locations will directly result in the different forming methods of the central contact beam. So the elastic connecting strip 8 of Ohsumi can be regarded

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as the central contact beam of claim 1.

In addition, seeing FIG. 1 of Ohsumi, it is disclosed that the folded elastic connecting strip 8 has a free end for abutting against the bottom plate portion 5 to prevent an undue deformation of the elastic connecting strip 8 during the insertion of a complementary contact. Therefore, Ohsumi fails to disclose said free end being apart from said intermediate portion a predetermined distance in a vertical direction as defined in claim 1. Pelozza does not disclose the above limitations, either.

Combination of Ohsumi and Pelozza cannot render obvious the instant invention as defined in claim 1. Thus, amended claim 1 is believed to be in condition of allowance. Issuance thereto is respectfully requested.

Claims 2-4, 6-8 are also believed to be patentable over the cited references since they depend from claim 1, either directly or indirectly.

In the same way, amended independent claim 9 also defines "said free end being apart from said intermediate portion a predetermined distance in a vertical direction", which are NOT disclosed in either of Ohsumi and Pelozza and their combination.

Thus, independent claim 9 and associated dependent claims 10-11 are patentable over Ohsumi in view of Pelozza.

As to independent claim 12, applicant respectfully disagrees with Examiner's opinion. Detailed explanations are given below.

Regarding independent claim 12, an electrical connector as defined therein comprises an insulative housing defining a plurality of cavities extending therethrough in a front-to-back direction; *plural pairs of vertical channels extending forwardly from a rear face of the housing* and in communication with the corresponding cavities, respectively; *plural pairs of horizontal slits extending forwardly from the rear face of the housing* and in communication with the corresponding cavities, respectively; a plurality of contacts forwardly inserted into the corresponding cavities from the rear face, respectively, each of said contacts including *a horizontal*

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*planar intermediate portion having two opposite side edges received in the corresponding pair of slits, respectively; a pair of vertical arms extending vertically from two sides of the intermediate portion with a pair of tips received in the corresponding channels, respectively; a central contact beam obliquely extending from the intermediate portion between said pair of contact beams; and a pair of resilient side arms horizontally extending from the pair of vertical arms, respectively, toward each other.*

However, applicant believes that **NONE** of Ohsumi, Peloza and Peterson et al. discloses the following limitations as defined in claim 12:

(I) "plural pairs of vertical channels extending forwardly from a rear face of the housing" and "plural pairs of horizontal slits extending forwardly from the rear face of the housing".

Transversely spaced slots 22 and side slots 24 as disclosed in Peterson et al. are different from vertical channels and horizontal slits as defined in claim 12. Referring to FIGS. 1 and 3 of Peterson et al., both of slots 22 and 24 are approximately defined in a central section of the cavity 16 but do not extend to a rear face of a connector housing 12. However, both of vertical channels and horizontal slits of claim 12 extend from a rear face of the housing.

(II) "a horizontal planar intermediate portion having two opposite side edges received in the corresponding pair of slits, respectively".

In Peterson et al., as shown in col. 3 lines 14-20, it is recited that each terminal 14 also includes an intermediate portion 44 joining mating portion 30 and conductor-terminating portion 34. The intermediate portion is generally U-shaped and includes a base wall 46 and a pair of upstanding side walls 48 extending from the base. Each side wall includes an upper free end portion 48a. A spring latch arm 50 is stamped out of each side wall 48 so as to be cantilevered angularly outwardly of the terminal. Further referring to col. 3 lines 35-39, it is recited that when the terminal is fully inserted into its cavity, outwardly cantilevered spring latch arms 50 snap into elongated side slots 24 behind a pair of latch shoulders 58 of the

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housing within the terminal-receiving cavity as shown clearly in FIG 3. It is clear from the above description that Peterson et al. discloses that the spring latch arms 50 of the side walls 48 are received in the corresponding side slots 24. However, claim 12 defines two opposite side edges of the horizontal planar intermediate portion are received in the corresponding pair of slits, respectively.

In a word, for the at least above reasons, these cited references cannot render obvious the instant invention as defined in claim 12. Thus, independent claims 12 and associated dependent claims 13-15 are patentable over the cited references.

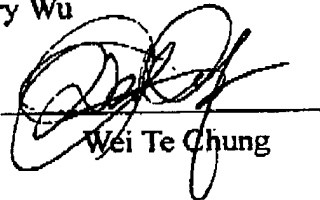
Favorable reconsideration and withdrawal of these rejections are respectfully requested.

In view of the above claim amendments and remarks, the subject application is believed to be in a condition for allowance and an action to such effect is earnestly solicited.

Respectfully submitted,

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